Publication No. 981792
6/92

MODIFICATION INSTRUCTIONS

for the

Kodak X-Omat Multiloader 300

Service Code: 3058

Modification No. 17

and for the

Kodak X-Omat 270 RA Processor

Service Code: 3059

Modification No. 11

Type 1: Required

Purpose: To correct the bowed tank walls.

IMPORTANT

Use qualified personnel to install this modification.

Service Effects:	None.
Special Requirements:	None.
Serial Numbers:	MULTILOADER 300: 101 - 415 with exceptions. See page 2 for the exceptions. 270 RA PROCESSOR: 101 - 404
Installation Time:	Approximately 2 hours. Processor Downtime Approximately 5 Hours.
Special Tools:	File, Vacuum Cleaner, Staight Edge, 1in. — 3in. "C" Clamp, Mallet, 2-inch Wide Tape
Parts Status:	Available through Service Parts Management in June 1992.
Parts Requirements:	See Parts List.

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CAUTION

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Parts List: Modification Kit, 981877, Includes:

Part No.	Description	Quantity
981792	Modification Instructions	1
981884	Tank Fixture	1
981885	Cutting Tool	1
981886	RTV Sealant	1
748025	Tank Stiffener	2
869623	Modification Sticker	1

Any *Kodak X-Omat* Multiloader 300 having a serial number listed below has already been modified, and does not need this kit installed:

141	235	284	295	318	391	398
158	237	285	296	362	392	399
188	244	287	297	364	393	400
192	245	289	299	366	394	401
202	250	290	303	370	395	402
224	255	293	304	387	396	403
229	266	294	308	389	397	404

Deenergizing the Processor

NOTE

If the processor TANKS were not drained, and the RACKS and CROSSOVERS were not removed previously to allow the chemistry absorbed by the TANK WALLS to evaporate, do that now by performing the procedure below. If the TANKS were drained, and the WET SECTION COVER was removed previously, go to Step 7.

[1] Turn off the water supply to the processor.

[2] Deenergize the processor.

- For the Multiloader 300:
  - Move circuit breaker CB2 to the "O" position.
  - Pull out the processor.
- For the 270 RA Processor:
  - Move the main circuit breaker, CB1, to the "O" position.
  - Open the TOP COVER.

[3] Move the main wall circuit breaker to the "OFF" position.

[4] Open the DEVELOPER DRAIN VALVE and the FIXER DRAIN VALVE to drain the TANKS.

[5] Allow the TANKS to drain completely.

[6] Remove the WET SECTION COVER.

[7] Remove the YOKE.

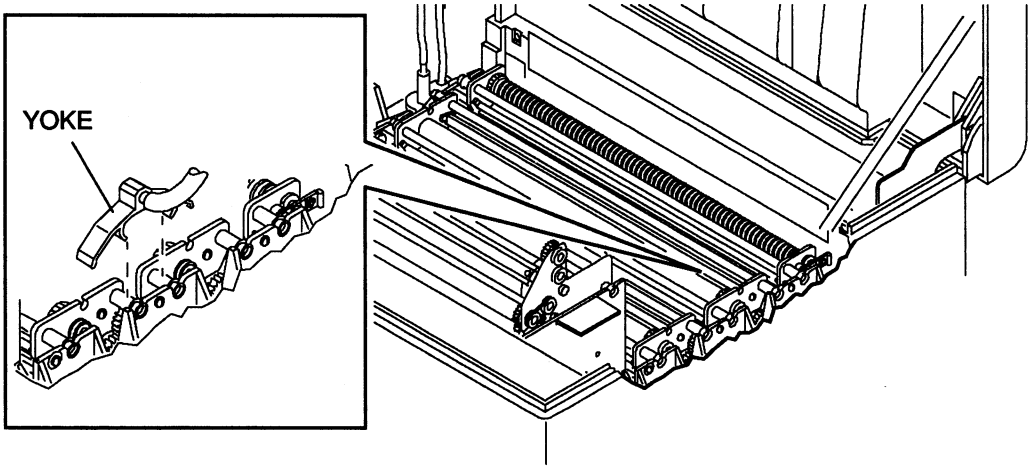

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Figure 1 Removing the Yoke

[8] Remove the QUICK DISCONNECT.

[9] Remove the FIXER MANDREL ASSEMBLY and the DEVELOPER MANDREL ASSEMBLY as follows:

- Remove the REPLENISHER HOSE from the MANDREL ASSEMBLY.
- Press the CLIP on the LEVEL SENSOR HOUSING.
- Remove the MANDREL ASSEMBLY.

NOTE

Keep the DEVELOPER FILTER to install later.

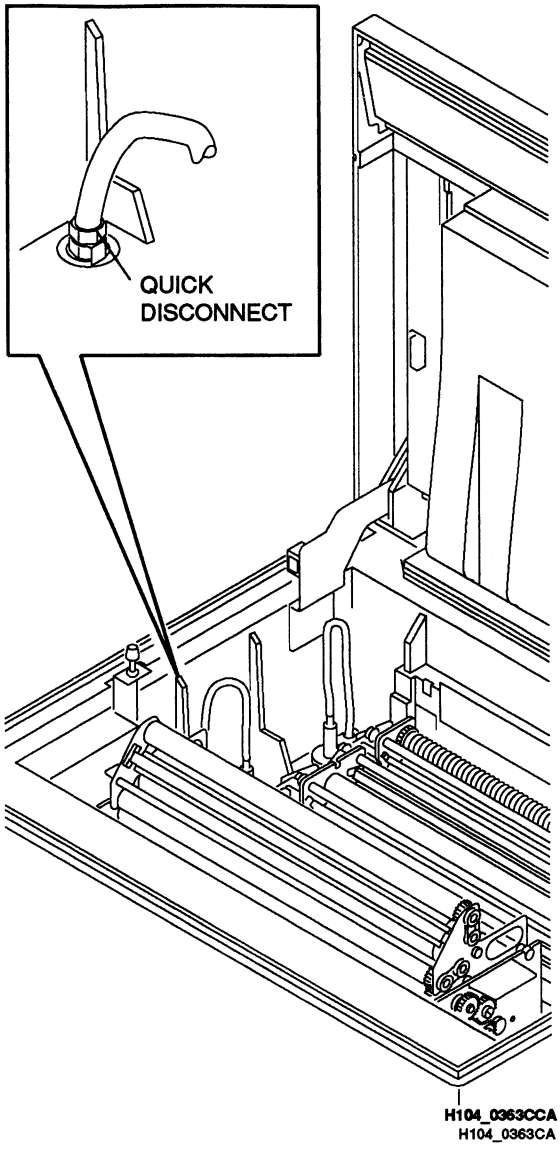

Figure 2 Removing the Quick Disconnect

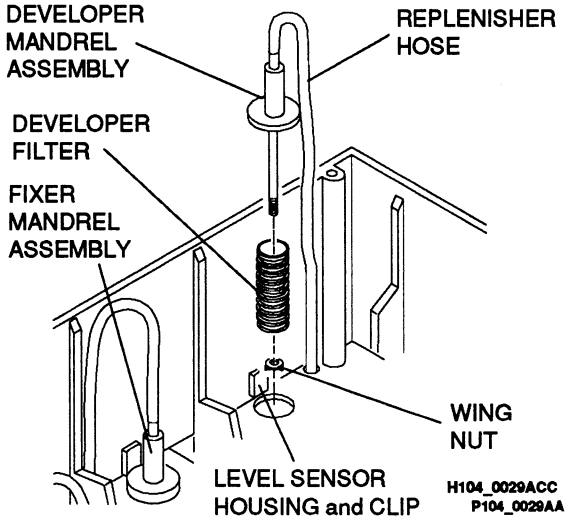

Figure 3 Removing the Developer Filter

[10] Remove:

- EVAPORATION COVERS
- DEVELOPER/FIXER CROSSOVER
- FIXER/WASH CROSSOVER
- ENTRANCE DETECTOR CROSSOVER
- TOP EXIT ASSEMBLY (270 RA Processor Only)
- DEVELOPER RACK
- FIXER RACK
- WASH RACK
- DRYER RACK.

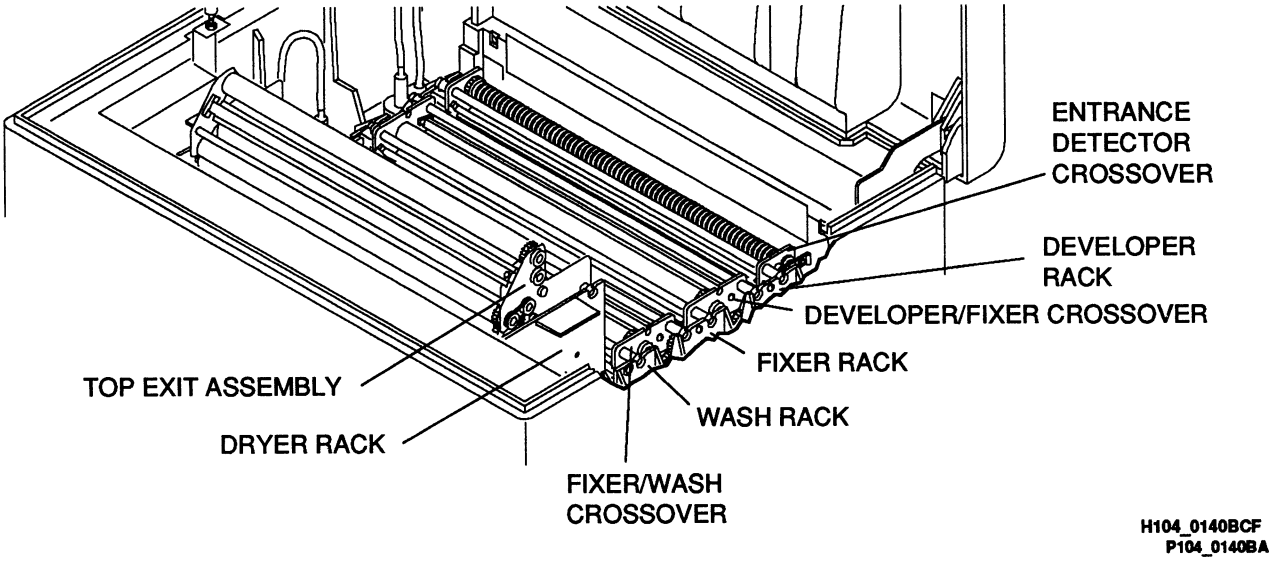

Figure 4 Removing Processor Components

Removing the Existing Stiffener from the Fixer/Wash Tank Wall

[1] Using a MALLET, remove the existing STIFFENER from the top of the FIXER/WASH TANK WALL.

- Discard the old STIFFENER.

NOTE

For easier removal of the STIFFENER, loosen the STIFFENER by tapping the bottom edge of the STIFFENER along the entire length of the STIFFENER. Loosen both sides of the STIFFENER before trying to remove the STIFFENER from the TANK WALL

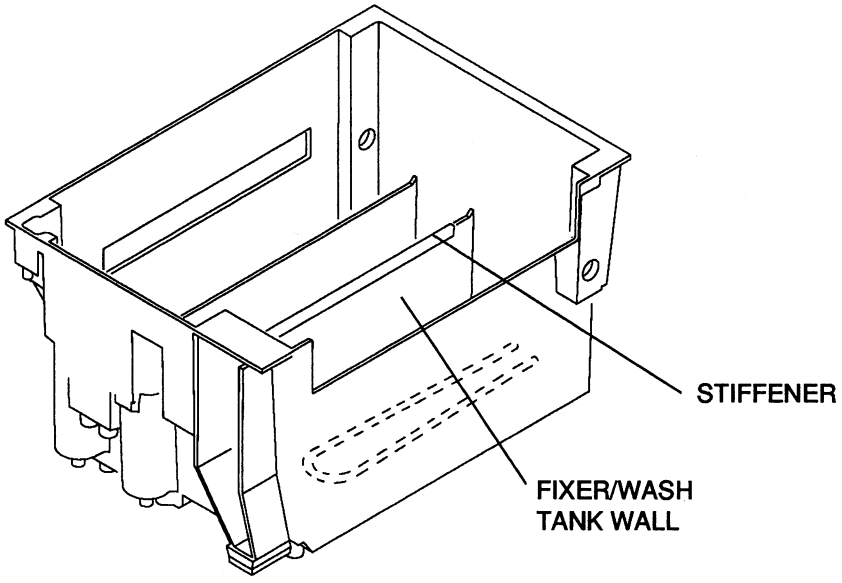

Figure 5 Loosening the Existing Stiffener

Cleaning the Processor Tanks

[1] Thoroughly rinse the processor TANKS with warm water.

[2] Carefully clean the top edge of the FIXER/WASH TANK WALL and the DEVELOPER/FIXER TANK WALL with warm water.

IMPORTANT

To prevent contamination, do not use the same cloth for the FIXER TANK and DEVELOPER TANK.

[3] Using a clean, lint-free cloth, wipe out the DEVELOPER TANK, the FIXER TANK, and the WASH TANK. Allow the TANKS to dry.

Installing the New Stiffener Onto the Fixer/Wash Tank Wall

[1] Place the FIXTURE, provided with the kit, over the top edge of the FIXER/WASH TANK WALL. Seat the FIXTURE firmly.

[2] Verify that the FIXTURE is centered between the 2 ends of the TANK WALL.

[3] Using a "C" CLAMP, secure the FIXTURE in position. See the figure.

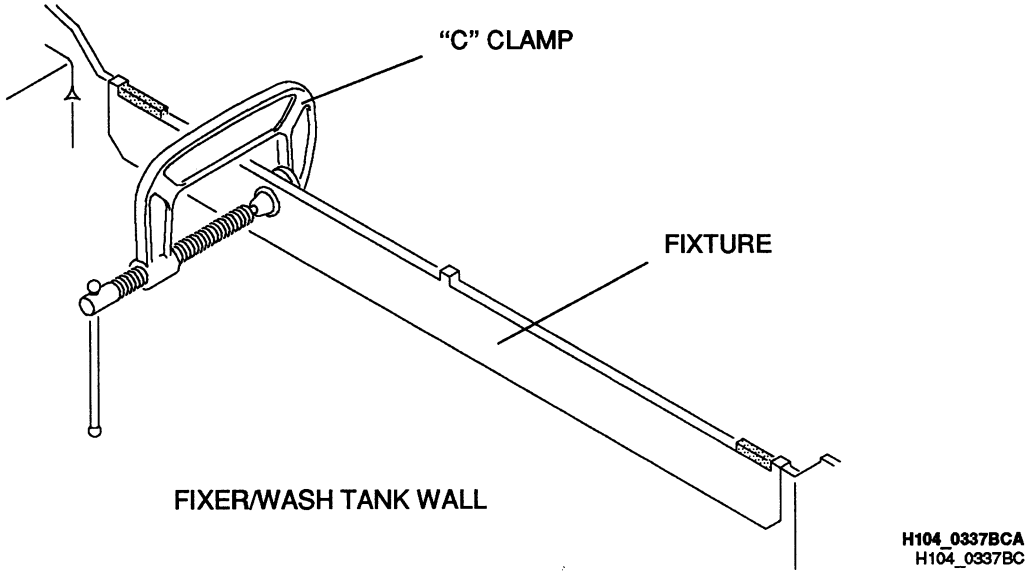

Figure 6 Securing the Fixture in Position

IMPORTANT

If any scrap filings remain in the processor after completion of this procedure, the filings could be circulated throughout the processor and could block tubes, as well as, cause film artifacts. To prevent the possibility of these conditions, be sure that all openings are properly sealed.

[4] Using 2-inch wide TAPE, seal all openings in the TANK sections to prevent scrap filings from entering the RECIRCULATION SYSTEM. Check that the openings listed below are sealed **completely**. See the figures.

- DEVELOPER DRAIN
- FIXER DRAIN
- WASH DRAIN
- DEVELOPER OVERFLOW
- FIXER OVERFLOW
- DEVELOPER RECIRCULATION LINE
- FIXER RECIRCULATION LINE
- DRYER PLENUM
- DRYER AIR DUCT
- QUICK DISCONNECT.

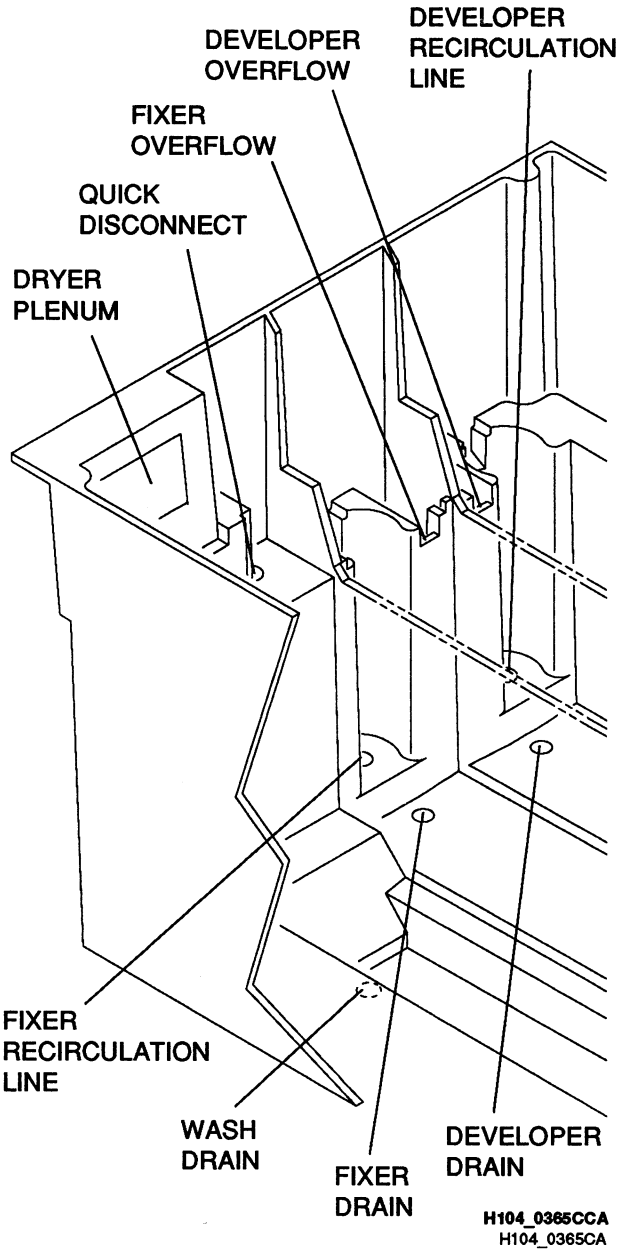

Figure 7 Sealing the Openings in the Tanks

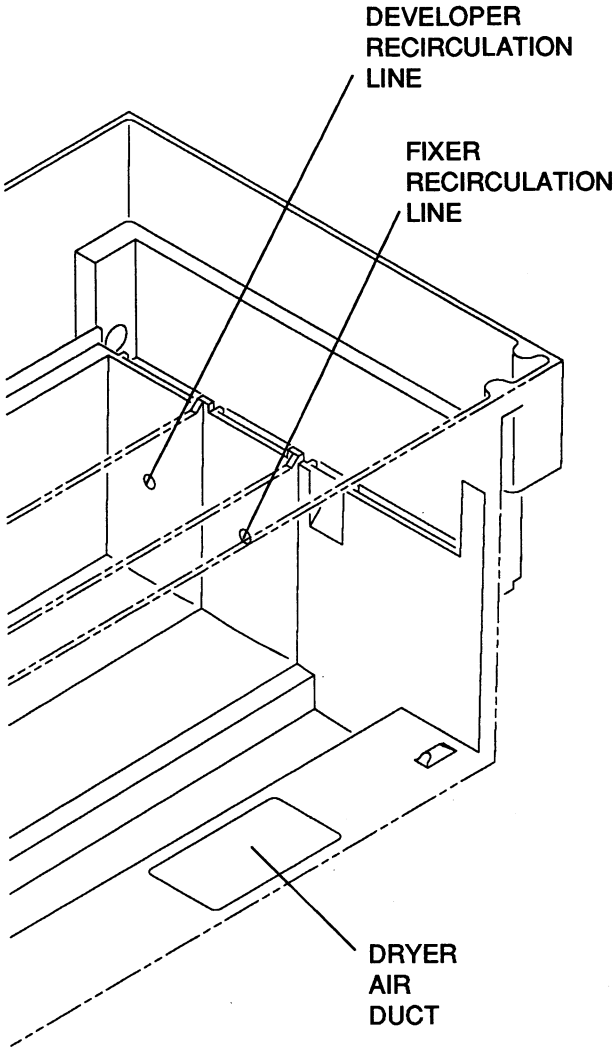

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Figure 8 Sealing the Openings in the Tanks

[5] Locate the area at each end of the FIXER/WASH TANK WALL that protrudes above the FIXTURE. See the shaded areas of the figure.

[6] Using either a FILE or the CUTTING TOOL provided with the kit, cut the top edge of those 2 areas identified in the previous step until they are even with the FIXTURE. See the shaded areas of the figure.

[7] Using a pencil, trace the OUTER EDGE of the FIXTURE at each end of the TANK WALL.

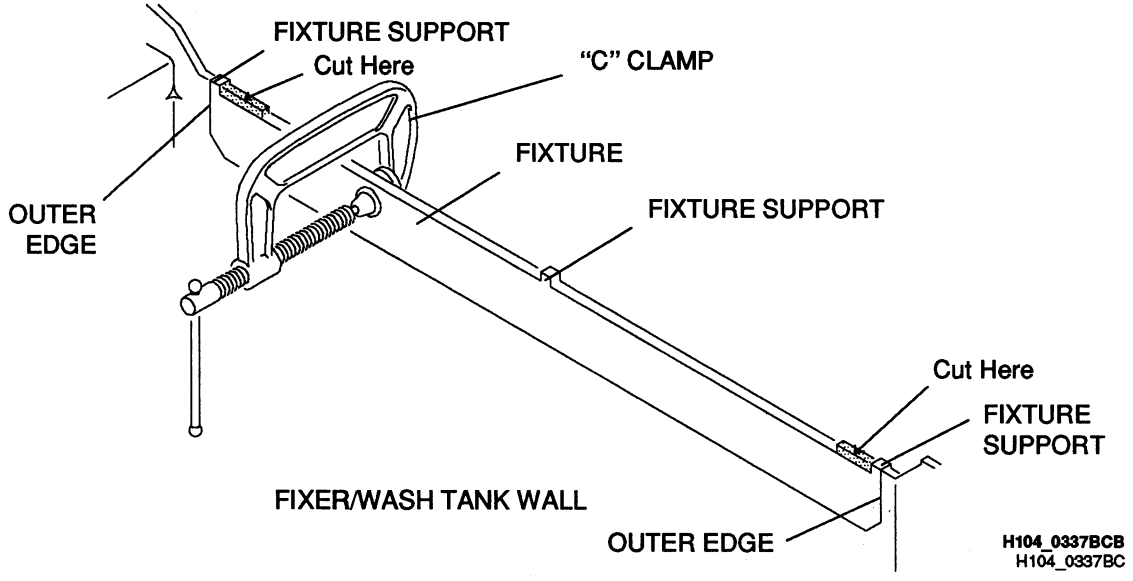

Figure 9 Cutting the 2 Protruding Areas on the Top Edge of the Fixer/Wash Tank Wall

[8] Remove the FIXTURE from the FIXER/WASH TANK WALL.

[9] Using a FILE, remove the 2 sections of the TANK WALL that were underneath the FIXTURE SUPPORTS. See the shaded sections of the figure.

[10] Using a FILE, cut the corner at each end of the TANK WALL so the corner is at right angles. Use the PENCIL LINE drawn in Step 7 as a guide. See the figure.

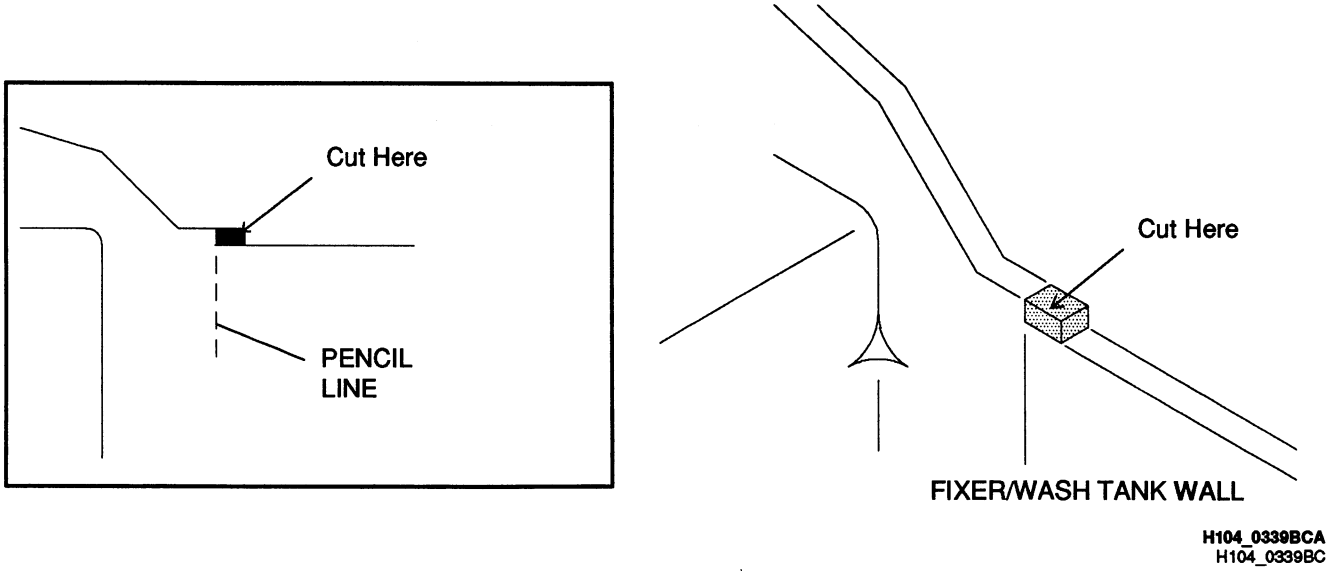

Figure 10 Cutting the 2 Sections Underneath the Fixture Supports

[11] Using a FILE, remove the burrs from the edges of the FIXER/WASH TANK WALL.

[12] Using a STRAIGHT EDGE, check that the top of the newly cut FIXER/WASH TANK WALL is straight.

- File any high spots.

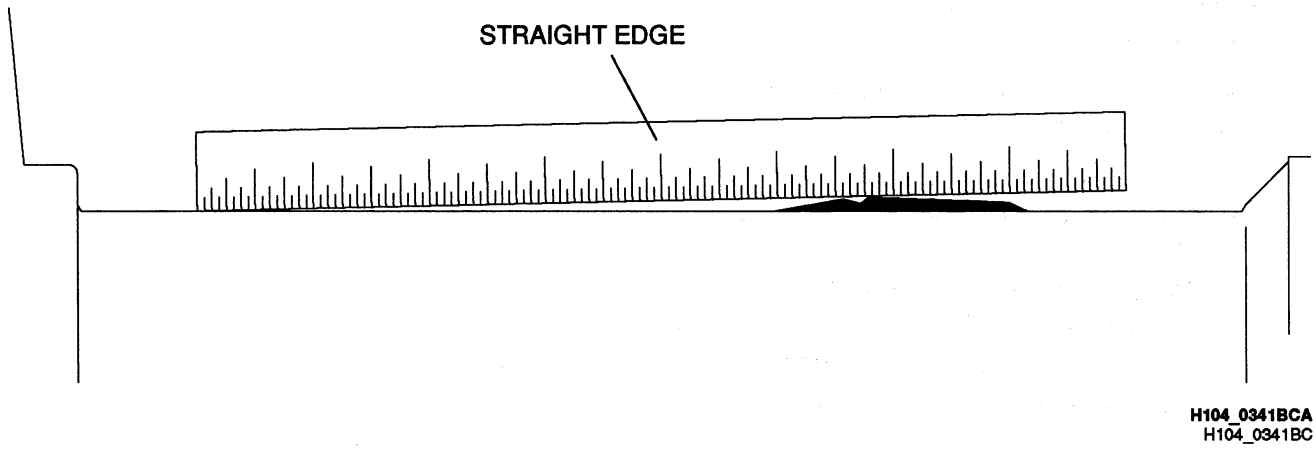

Figure 11 Using a Straight Edge to Check for Straightness of the Fixer/Wash Tank Wall

[13] Apply a thin film of SEALANT TL-2191 to the top edge of the FIXER/WASH TANK WALL to seal the edge.

[14] Apply the SEALANT to the bottom surface inside the STIFFENER.

- The row of SEALANT should be approximately 1/8 inch wide.
- The row of SEALANT should be without breaks or gaps.

[15] Install the STIFFENER onto the top edge of the FIXER/WASH TANK WALL.

a. Be certain that the STIFFENER is positioned properly within the areas cut in Step 6.

b. Be certain that the STIFFENER is fully seated on the TANK WALL.

- If necessary, tap the STIFFENER with a hammer and a block of wood.

NOTE

If the STIFFENER is not fully seated on the top edge of the TANK WALL, it may interfere with the proper operation of the CROSSOVER.

[16] Using a clean, lint-free cloth, wipe **all** SEALANT from the sides of the FIXER/WASH TANK WALL.

IMPORTANT

Verify that all traces of SEALANT are removed.

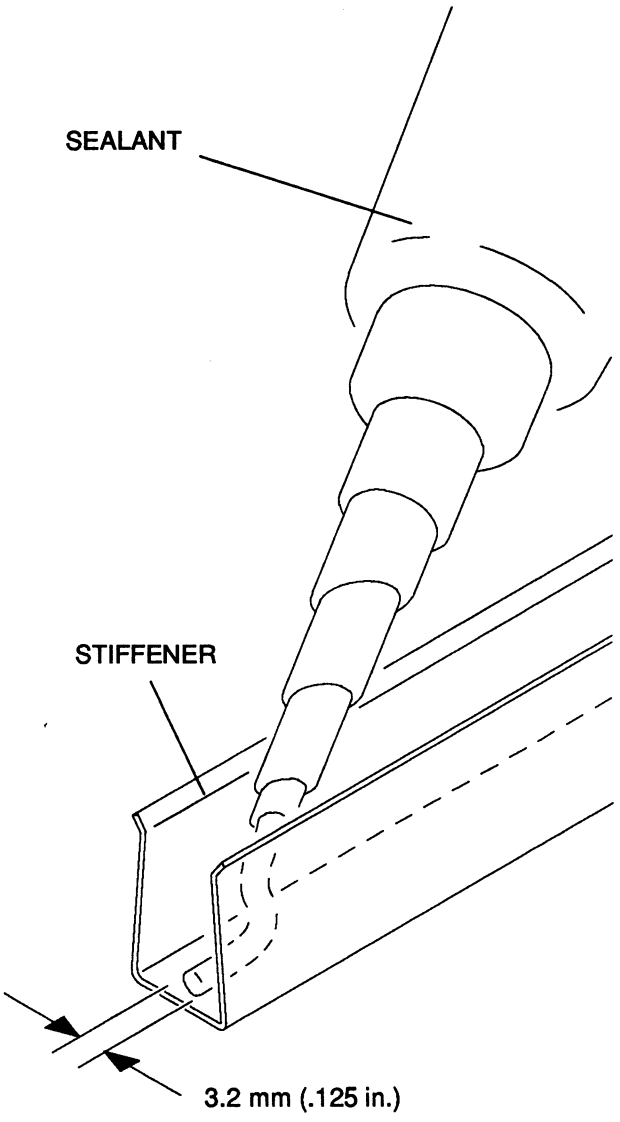

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Figure 12 Applying Sealant to the Stiffener

Installing the New Stiffener Onto the Developer/Fixer Tank Wall

[1] Place the FIXTURE, provided with the kit, over the top edge of the DEVELOPER/FIXER TANK WALL. Seat the FIXTURE firmly.

[2] Verify that the FIXTURE is centered between the 2 ends of the TANK WALL.

[3] Using a "C" CLAMP, secure the FIXTURE in position. See the figure.

IMPORTANT

Verify that all openings in the TANKS are still sealed with TAPE to prevent any scrap filings from entering the inside of the processor.

[4] Using the CUTTING TOOL, provided with the kit, cut the top edge of DEVELOPER/FIXER TANK WALL that protrudes above the FIXTURE. See the shaded areas of the figure.

IMPORTANT

It will be necessary to move the "C" CLAMP to a second position on the TANK WALL in order to cut the top edge of the TANK WALL directly under the original position of the "C" CLAMP. **Be careful not to change the position of the FIXTURE on the TANK WALL when moving the "C" CLAMP.**

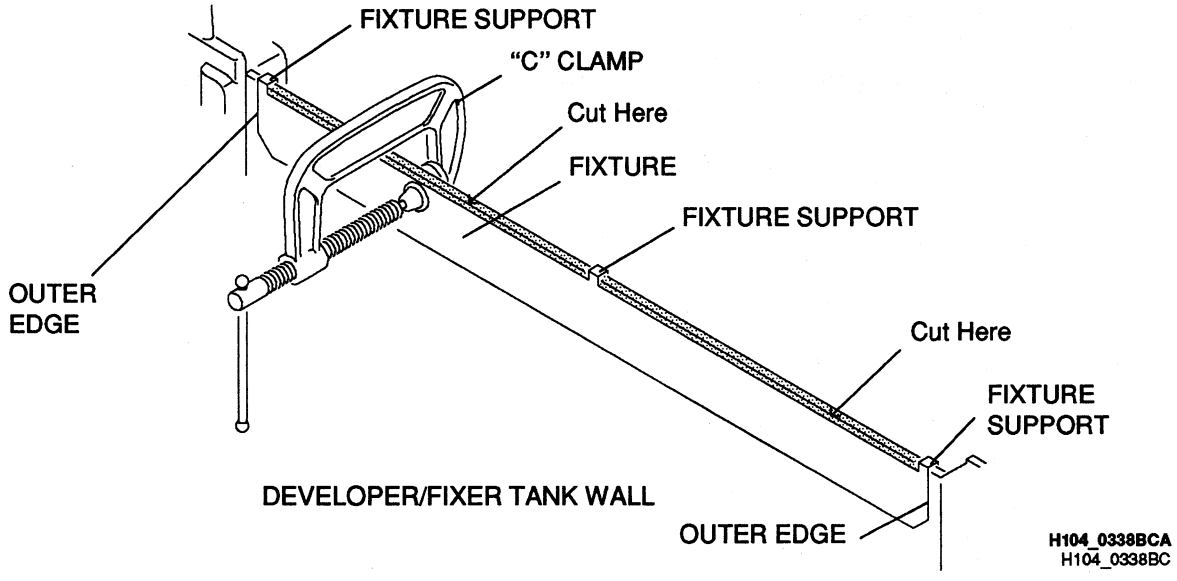

Figure 13 Cutting the Top Edge of the Developer/Fixer Tank Wall

[5] Using a pencil, trace the OUTER EDGE of the FIXTURE at each end of the TANK WALL.

[6] Remove the FIXTURE from the DEVELOPER/FIXER TANK WALL.

[7] Cut the 3 sections of the TANK WALL that were underneath the FIXTURE SUPPORTS. See the shaded areas of the figure.

[8] Using a FILE, cut the corner at each end of the TANK WALL so the corner is at right angles. Use the PENCIL LINE drawn in Step 5 as a guide. See the figure.

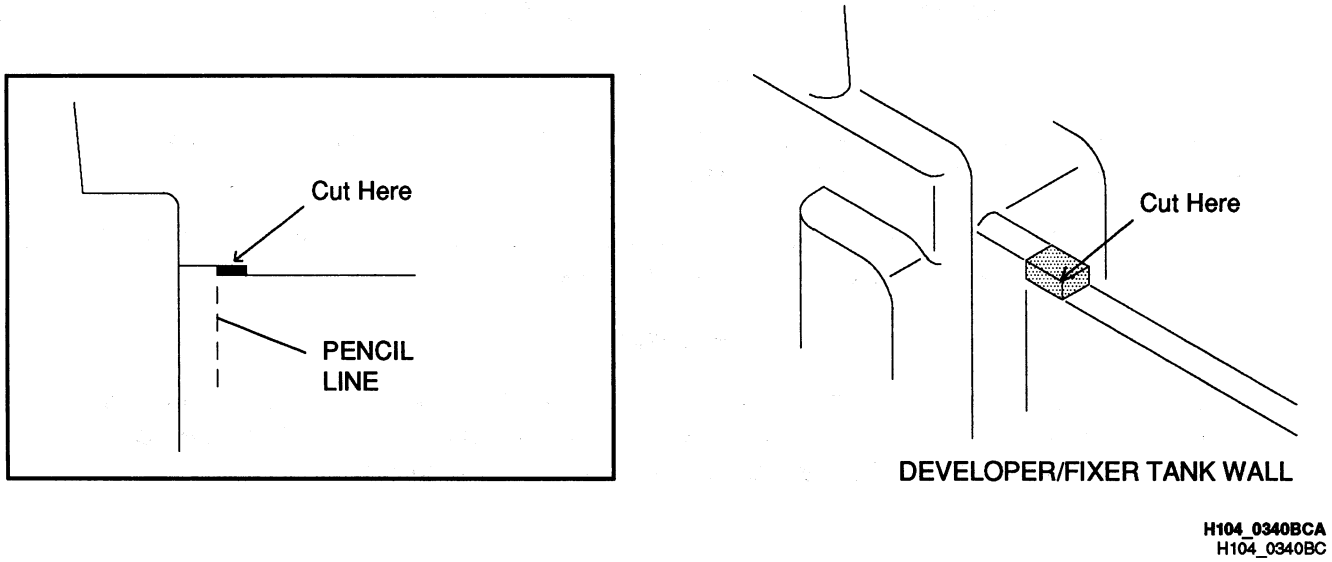

Figure 14 Cutting the 3 Sections Underneath the Fixture Supports

[9] Using a FILE, remove the burrs from the edges of the DEVELOPER/FIXER TANK WALL.

[10] Using a STRAIGHT EDGE, check that the top of the newly cut DEVELOPER/FIXER TANK WALL is straight.

- File any high spots.

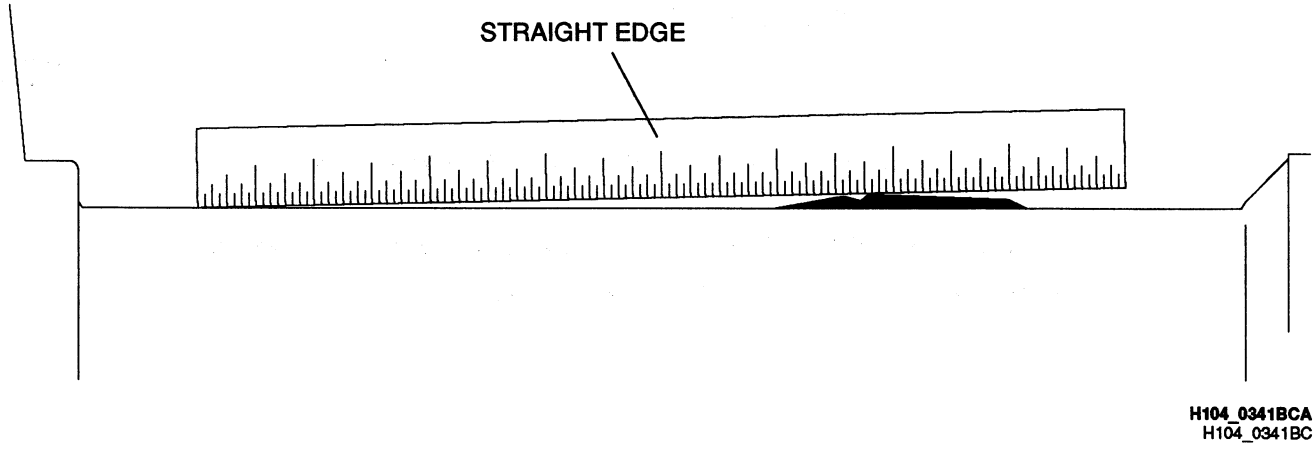

Figure 15 Using a Straight Edge to Check for Straightness of the Developer/Fixer Tank Wall

[11] Apply a thin film of SEALANT TL-2191 to the top edge of the DEVELOPER/FIXER TANK WALL to seal the edge.

[12] Apply the SEALANT to the bottom surface inside the STIFFENER.

- The row of SEALANT should be approximately 1/8 inch wide.
- The row of SEALANT should be without breaks or gaps.

[13] Install the STIFFENER onto the DEVELOPER/FIXER TANK WALL.

a. Be certain that the STIFFENER is positioned properly within the areas cut in Step 4.

b. Be certain that the STIFFENER is fully seated on the TANK WALL.

- If necessary, tap the STIFFENER with a hammer and a block of wood.

NOTE

If the STIFFENER is not fully seated onto the top edge of the TANK WALL, it may interfere with the proper operation of the CROSSOVER.

[14] Using a clean, lint-free cloth, wipe **all** SEALANT from the sides of the DEVELOPER/FIXER TANK WALL.

IMPORTANT

Verify that all traces of SEALANT are removed.

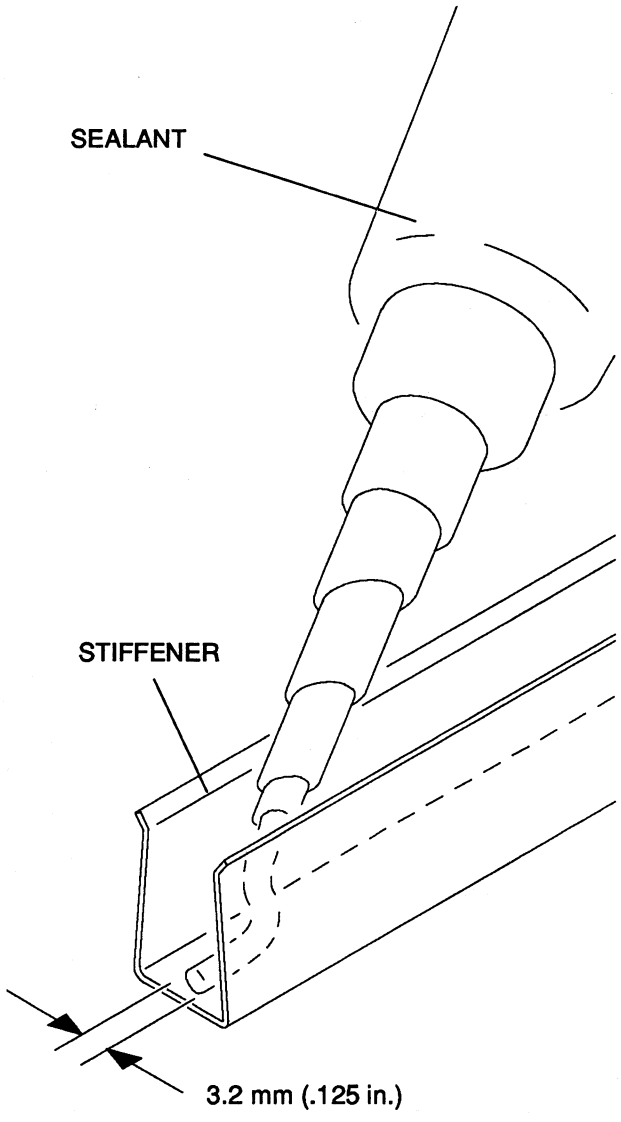

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Figure 16 Applying Sealant to the Stiffener

Modifying the Fixer Rack

The new STIFFENER installed on the DEVELOPER/FIXER TANK WALL will interfere with the insertion of the FIXER RACK.

[1] Set the FIXER RACK on a flat work surface.

NOTE

Stand the FIXER RACK upright as shown in the figure. Do not lay the FIXER RACK down flat on the work surface.

[2] Prevent scrap filings from falling into the ROLLERS by covering the ROLLERS with protective material.

[3] Using a FILE, remove approximately 1.5 mm (1/16 in.) of the 2 PROTRUSIONS on the FIXER RACK. See the shaded area of the figure.

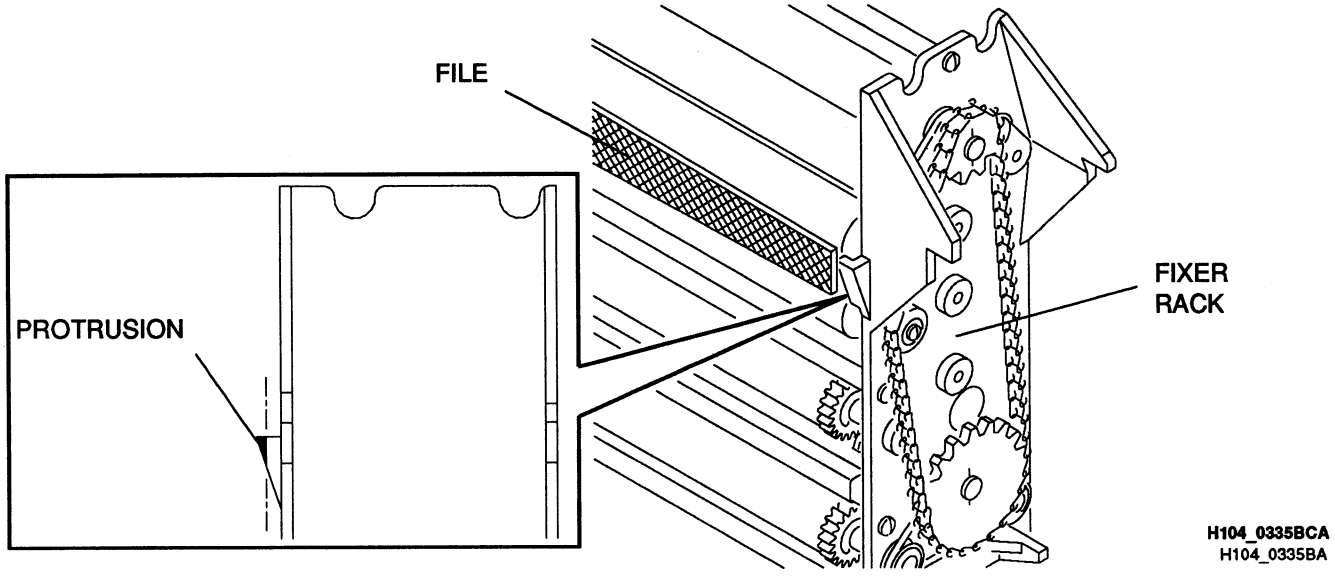

Figure 17 Removing the 1.5 mm (1/16 in.) of the Protrusions on the Fixer Rack

[4] Remove the protective material from the ROLLERS.

[5] Insert the FIXER RACK into the processor.

[6] Check whether you can easily install and remove the FIXER RACK without any binding or sticking.

- If you cannot install and remove the FIXER RACK easily:
  - Stand the FIXER RACK upright on a flat, work surface.
  - Cover the ROLLERS with protective material.
  - Using a FILE, remove a little more of the PROTRUSIONS on the FIXER RACK.
  - Repeat Steps 4 through 6 as necessary.
- If you can install and remove the FIXER RACK easily:
  - Set the FIXER RACK in a sink and thoroughly wash the FIXER RACK with clean water to remove any scrap filings.

IMPORTANT

Be sure that all scrap filings are removed from the processor TANKS. If any scrap filings remain in the processor after completion of this procedure, the filings could be circulated throughout the processor and could block tubes, as well as, cause artifacts.

[1] Using a VACUUM CLEANER, thoroughly clean all surfaces of the processor TANKS.

[2] Remove the TAPE sealing the openings in the processor TANKS.

[3] Using a VACUUM CLEANER, again, thoroughly clean all surfaces of the processor TANKS and the DRYER AIR DUCT.

[4] Thoroughly flush the processor TANKS with clean water.

[5] Wipe clean the entire processor. Be sure that all scrap filings are removed from the:

- DEVELOPER TANK
- FIXER TANK
- WASH TANK
- DRYER AIR DUCT.

[6] Install:

- FIXER RACK
- WASH RACK
- DRYER RACK
- DEVELOPER RACK
- TOP EXIT ASSEMBLY (270 RA Processor Only)
- ENTRANCE DETECTOR CROSSOVER
- FIXER/WASH CROSSOVER
- DEVELOPER/FIXER CROSSOVER
- EVAPORATION COVERS.

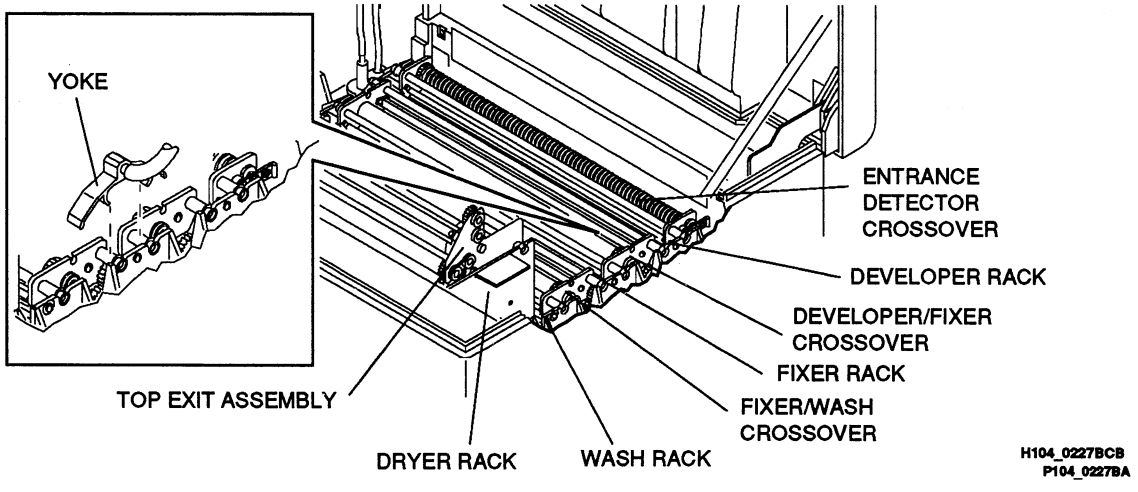

Figure 18 Installing Processor Components

[7] Install the FIXER MANDREL ASSEMBLY and the DEVELOPER MANDREL ASSEMBLY with the FILTER. If necessary, see the procedures on page 4 and simply reverse the steps to install the MANDREL ASSEMBLIES.

[8] Install the YOKE and QUICK DISCONNECT.

[9] Install the WET SECTION COVER.

[10] Open the DEVELOPER DRAIN VALVE and the FIXER DRAIN VALVE to drain the TANKS.

[11] Circle the appropriate number on the MODIFICATION STICKER. See the figure for the location of the MODIFICATION STICKER. If your equipment does not have a MODIFICATION STICKER already on it, use the MODIFICATION STICKER provided with the kit.

- **For a Multiloader 300**:
  - remove the SIDE PANEL
  - circle number 17 on the MODIFICATION STICKER.
- **For a 270 RA Processor**:
  - remove the FRONT PANEL
  - circle number 11 on the MODIFICATION STICKER.

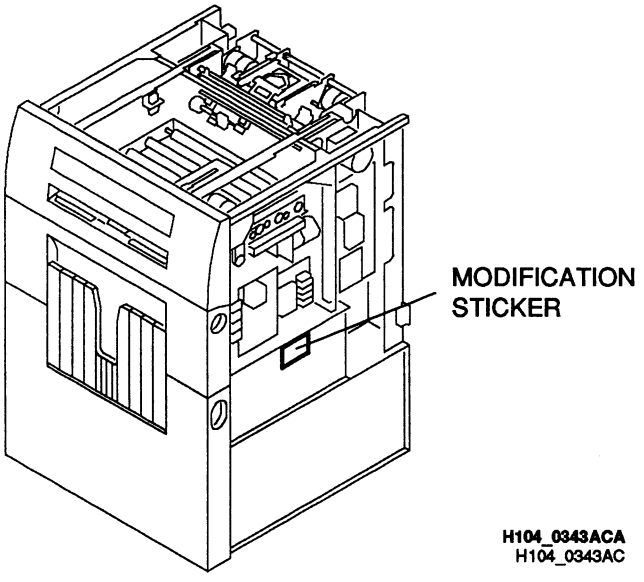

Figure 19 Locating the Modification Sticker on a Multiloader 300

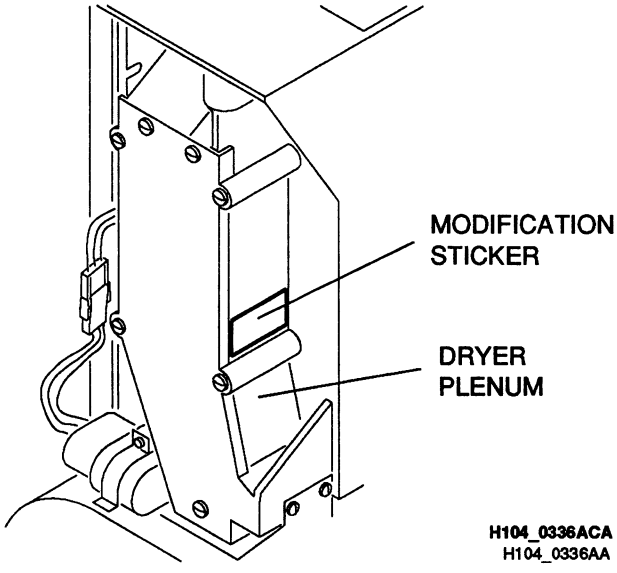

Figure 20 Locating the Modification Sticker on a 270 RA Processor

[12] Allow 3 hours before energizing the processor so that the SEALANT can thoroughly dry.

[13] Turn on the water supply to the processor.

[14] Move the main wall circuit breaker to the "ON" position.

[15] Energize the processor.

- For the Multiloader 300:
  - Push in the processor.
  - Move circuit breaker CB2 to the "I" position.
- For the 270 RA Processor:
  - Close the TOP COVER.
  - Move the main circuit breaker, CB1, to the "I" position.

[16] From the DISPLAY PANEL, select the **Tank Fill Mode** to fill the processor TANKS automatically.

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